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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Young-Woo Lee

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EXAMINER

ORTIZ CRIADO, JORGE L

ART UNIT

PAPER NUMBER

2627

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/603,813	Applicant(s) LEE ET AL.	
	Examiner Jorge L. Ortiz-Criado	Art Unit 2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 March 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 10-16 and 18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10-16, and 18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102/103

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 10-16, and 18 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Kuroda et al. U.S. Patent No. 6,144,625.

Regarding claim 10, Kuroda et al. discloses an apparatus identifying a disc type (see Figs 1-2, 6; see col. 6, lines 25-67; col. 11, lines 9-11), comprising:

an RF amplifier (7, 7a) that produces a push-pull signal from a light wave reproduced from a disc; and

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an LPP signal detector (13) that detects a certain voltage level (reference value) in the push-pull signal (see col. 8, lines 6-29);

wherein if the certain voltage level is detected (see col. 8, lines 6-29) the disc is identified as a DVD(-)/ "R" type disc (see Fig. 6, step 25 "YES", step S23) and if the certain voltage level is not detected the disc is identified as a DVD(+)/ "other" type disc (see Fig. 6, step 25 "NO", step S17) and

wherein the LPP detector (13) detects an LPP signal according to detection of the certain voltage level by slicing the push-pull signal at a constant level (see col. 8, lines 6-29).

Kuroda et al discloses wherein the DVD are recordable discs and determines that the disc is a DVD(-)/ "R" type disc when the LPP signal is detected, and that the disc is a DVD(+)/ "other" type disc when the LPP signal is not detected, hence determines disks among DVD (-) and DVD (+), such as read only (R) or Rewritable (RW), and therefore meets the claim.

In the alternative, assuming *arguendo* that Kuroda et al does not mention or disclose that these types of discs are in fact included among them, the examiner takes Official Notice that DVD(-) type discs, including DVD-RW and DVD-R discs, and DVD(+) type discs, including DVD+RW and DVD+R discs, are old and well known in the art, see Applicant's Background of the invention [003]-[005].

Therefore, it would have been obvious to one of ordinary skill in the art to determine disks between DVD (-) and DVD (+), specifically RW and R type discs, since Kuroda et al teaches discriminating between DVD(-)/"R" type discs and DVD(+)/"other" type discs, and because RW and R type discs are known to be included among DVD (-) and DVD (+) type discs.

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Regarding claim 11, Kuroda et al. discloses wherein the LPP detector (13) detects an LPP in the push-pull signal by detection of the certain voltage level (see col. 8, lines 6-29).

Regarding claim 12, Kuroda et al. discloses a system controller (9) that controls a disc drive and identifies the disc type (Figs 1).

Regarding claim 13, Kuroda et al. discloses a servo controller that enables tracking and focusing (see col. 7, lines 45-59; col. 9, lines 18-24).

Regarding claim 14, Kuroda et al. discloses an optical detector (1) that detects the light wave reflected from the disc (see Fig. 1).

Regarding claim 15, Kuroda et al. discloses wherein the optical detector (1) comprises: a structure divided into four sections having a first photodiode, a second photodiode, a third photodiode, and a fourth photodiode (see Fig. 1).

Regarding claim 16, Kuroda et al. discloses wherein the RF amplifier (7, 7a) comprises: a current-to-voltage converter having a first amplifier, a second amplifier, a third amplifier, and a fourth amplifier, wherein the four amplifiers convert output signals from corresponding first through fourth photodiodes of the optical detector to voltage values (inherent to Kuroda et al.); and

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a push-pull operator having a first adder (19), a second adder (20), and a subtracter (21), wherein the first adder adds output signals of the first amplifier and the second amplifier to produce a first added signal, the second adder adds output signals of the third amplifier and the fourth amplifier to produce a second added signal, and the subtracter adds the first added signal and the second added signal to produce the push-pull signal (see Fig 2, # 7a).

Regarding claim 18, Kuroda et al. discloses an optical detector (1) having a bi-sectional structure that includes a first photodiode (B1B4) and a second photodiode (B2B3) (see Fig 2).

Response to Arguments

Applicant's arguments filed 03/27/2007 have been fully considered but they are not persuasive.

Applicant argues that the Kuroda et al reference fails to disclose, suggest or distinguish between “DVD(-) and “DVD(+)”, and that the evidence provided by the examiner stating that DVD(-) type discs including DVD-RW and DVD-R discs; and DVD(+) type discs including DVD+RW and DVD+R discs are old and well known in the art as evidenced in Applicant's admitted prior art recited in paragraphs[003]-[005] of the specification, does not provide the distinction.

The examiner does not concur and respectfully disagrees, because Kuroda et al. clearly discloses wherein the system controller (9) determines that the disc is a DVD-R type disc when the LPP signal is DETECTED (see Fig. 6, step 25 “YES”, step S23) and that the disc is a

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DVD(+)/ “LBELED OTHER in Kuroda” type disc when the LPP signal is NOT DETECTED

(see Fig. 6, step 25 “NO”, step S17).

As far as the examiner can tell, Applicant’s “DVD(+)”, as claimed, is merely the disk DVD which does not contain the LPP (LAND PRE-PIT) and corresponds to Kuroda et al’s “LBELED OTHER TYPE”, which does not contain said LPP (LAND PRE-PIT). The claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. The examiner cannot find their differences.

Furthermore, Applicant’s admitted prior art in paragraphs [003]-[005] makes clear that among DVD (-) and DVD (+) discs are read only (R) or Rewritable (RW).

Specifically, paragraph [005] of the specification states “Particularly, in the case of DVD-R/-RW type discs, position information of a groove track is recorded by forming a pre-pit in a land track on which data is not recorded. The pre-pit formed in the land track is called LPP (Land Pre-Pit). The LPP is recordable in wobble shapes, and used to store an absolute address of the portion where data is not recorded, i.e., a block address number, and other information. However, in case of DVD+R/+RW type discs, the wobble is formed in a phase modulation method.”

It is clear that a distinction is made between the types of discs that have the LPP (Land Pre-Pit) and the types of discs that do not have it, where among DVD (-) discs are included DVD-RW and DVD-R, and among DVD (+) discs are included DVD+RW and DVD+R.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jorge L. Ortiz-Criado whose telephone number is (571) 272-7624. The examiner can normally be reached on Mon.-Fri 10:00 am- 6:30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch can be reached on (571) 272-7589. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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